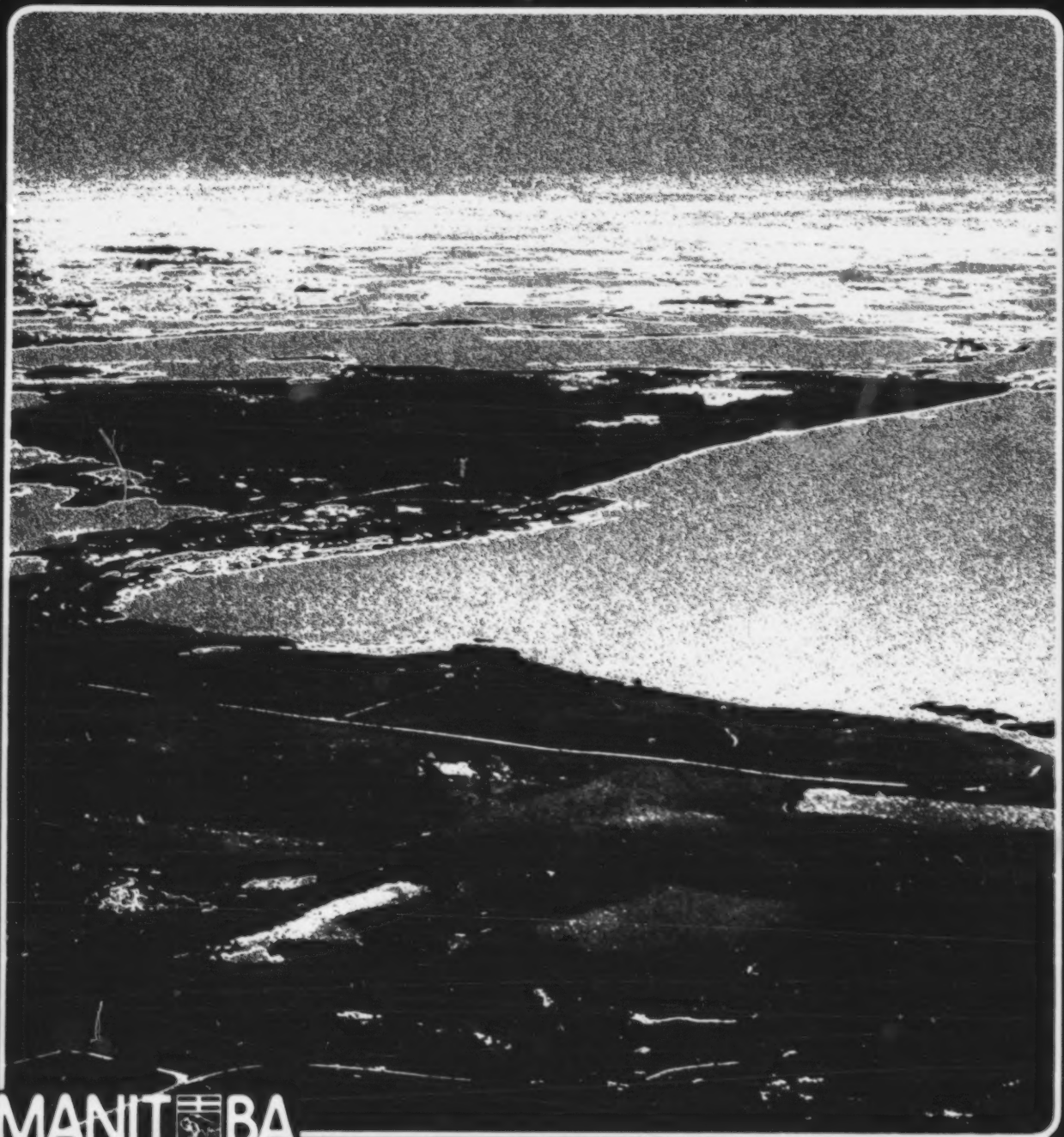

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Manitoba
Natural Resources

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prepared by the
Resource Allocation Working Group

PLANNING REPORT ON NATURAL RESOURCES

RUSSELL-BINSCARTH PLANNING DISTRICT

Technical Report 86-2

Preface

Municipal Councils or established Planning District Boards are charged with the responsibility for municipal land use planning and development. This document has been prepared in response to a request from the local municipal planning authority for background material on the subject of natural resources for which the Department is responsible.

This document describes the natural resources in the study area, and identifies Provincial and Departmental concerns and objectives from a land use, development planning perspective. It offers for review, policies and guidelines to remedy, mitigate or anticipate issues and land use problems.

The bases for this report are the Provincial Land Use Policies dealing with natural resources and the policies of the Department of Natural Resources.

Municipal planning is a consultative process, and the information and policies discussed in this document are offered as advice to the local authority in their land planning deliberations.

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FISHERY RESOURCES

1. PRESENT CONDITIONS/INTRODUCTION

The Assiniboine River is the only significant fishery in the District. Streams and tributaries to the Assiniboine have limited sport fish potential due to low and intermittent flow (Map 1).

Following a 1977 request to stock trout in Silver Creek, 4,000 rainbow trout fingerlings were stocked, on a trial basis, southwest of Binscarth, about 3km (about 2 miles) above the Assiniboine River. The high gradient and limited habitat were likely factors preventing the successful introduction of this species. Public access to this stream was also a problem as some landowners adjacent to the stream were reluctant to sign access agreements.

Russell Reservoir is an earthfill dam constructed in 1964 for stock watering and domestic use. At a full supply elevation of 550.6 meters (1806 feet), the reservoir has a surface area of about 47 hectares (140 acres) and a storage volume of about 1235 cubic decameters (1000 acre feet). The reservoir had been used as the water supply for the Town of Russell, but poor water quality, caused partly by low dissolved oxygen levels (resulting, in part, from the decomposition of large amounts of algae and weed growth), plus limited spring run-off, forced the Manitoba Water Services Board to abandon the reservoir in favour of a groundwater supply. The reservoir served as a lightly used angling area until winterkill frequency increased to the point where fish restocking was discontinued after 1974. The reservoir was first stocked with rainbow trout in 1965. Between 1969 and 1974 northern pike and perch were stocked on seven occasions. The small amount of winter aeration conducted by the Manitoba Water Services Board was insufficient to prevent fish winterkills. Intensive aeration would be moderately costly to operate but this rehabilitative measure would improve water quality and allow renewed recreational and domestic use of the reservoir. Considering the shallow, weedy character of Russell Reservoir and the proximity of Russell to a major fishery on Lake of the Prairies, there has been a reduced need to rehabilitate Russell Reservoir. Intensive aeration of Russell Reservoir would allow the development of a more localized fishery and provide expanded industrial development potential. The capital cost of an aeration facility could be supported, in part, through the Manitoba Habitat Heritage Program.

The Assiniboine River supports several fish species including walleye, sauger, perch, northern pike, freshwater drum, mooneye, goldeye, rock bass, catfish, bullheads, white suckers, silver redhorse suckers, shorthead suckers, quillback suckers, burbot, carp, chestnut lamprey and numerous minnows. Habitat is varied and natural reproduction sustains populations.

Angling occurs at a few access points along the Assiniboine River. Success varies from year to year. The extent of the fish harvest has never been monitored intensively at any location in the district. Angling success usually declines by late fall. This may be due to a lack of spring activity and deep areas suitable for overwintering.

Fish kills of varying severity have been reported on the Assiniboine River. The causes of the die-off have not always been determined. Water quality is highly variable and is influenced by upstream uses, erosion, rate of discharge and algae production along the river. Indirectly, waste disposal, livestock operations, run-off and erosion from adjacent drains and watersheds tend to add fertilizing nutrients to the river which increase algae production. The decomposition of this algae biomass can deplete dissolved oxygen values to levels critical for fish. Algae problems impact the quality of water supplies and increase water treatment costs of downstream users.

II. CONCERNS/OBJECTIVES

The Assiniboine River is the only significant fishery in the municipality. Since fish demand is high, the Assiniboine River and its watershed should be protected from abuses. Specifically, the fisheries concerns/objectives are:

Objectives:

1. Fish are a renewable resource and it is incumbent upon all governments to ensure the provision of a suitable habitat that will assure continuing fish stocks for the long term benefit of all Manitobans.

2. To ensure the survival or improvement of fish stocks, subject to the effects of natural environmental changes and approved man-made environmental changes, specifically to protect existing fisheries habitats, spring spawning sites and nursery areas along the Assiniboine River and its tributaries. Some streams, for example, Silver Creek, Thunder Creek, and Conjuring Creek may support fish runs in some years and serve as spawning and rearing areas for pike, walleye and suckers.

3. To maintain, enhance and diversify angling opportunities for Manitobans to meet existing and future demands.

4. To promote communication and co-operation between private landowners, industry, the public, local government and the Department of Natural Resources so as to achieve high standards of conservation practices.

III. POLICIES/GUIDELINES

Although fisheries habitat is being stressed and has been reduced, what remains can be retained and enhanced by judicious use of land and water in the planning district. In order to achieve the fisheries objectives and to mitigate and alleviate concerns, the following apply:

1. Fisheries habitat, spawning sites and nursery areas shall be protected.

    a) Ditching and stream rechannelization should not be permitted in direct tributaries to the Assiniboine River and Russell Reservoir. The construction of dykes as opposed to channel deepening and straightening shall be encouraged. Measures to limit nutrient and sediment inflow shall be encouraged.

b) Land Clearing, cultivation and development to the edge of significant waterways shall be prohibited. Where possible a buffer strip of natural vegetation 92.0 meters (300 feet) wide from the ordinary high water mark shall be maintained along the Assiniboine River. Development or maintenance of appropriate vegetative cover along waterways to prevent erosion, siltation and reduce run-off shall be encouraged.

2. Shorelines subject to intensive use and development should be protected from excessive erosion and organic loading. Activities that discharge pollutants shall be restricted in their location and it may be required that precautionary safeguards that mitigate the pollutant be incorporated into the development activity.

3. The right of public access to fishing waters shall be encouraged.

IV. IMPLEMENTATION

The objectives and policies with respect to fisheries shall be implemented as follows:

1. By assistance and advice on conservation practices by the staff of the Department of Natural Resources.

2. By public and private co-operation through management and development agreements.

3. By the Council through the judicious use of restrictive zoning by-laws, subdivision control procedures and the issuance of development permits.

FORESTRY RESOURCES

I. PRESENT CONDITIONS/INTRODUCTION

The Russell-Binscarth Planning District is within the Aspen Parkland Forest Section, Forest Management Unit 07 as defined in the Manitoba forest inventory classification system, 1980 (Map 2). Forest inventory on the area has been completed in 1984. Both Crown land and private land forest inventory information are available and should be of benefit to landowners in the area. Field forest measurements that may be required on private lands to complete the forest inventory will only be done with permission from the landowners.

As the area is in close proximity to population centres landowners with forested land on their holdings might consider growing trees as a crop, for example, fuelwood. This is particularly true for land unsuitable for other agricultural purposes but still capable of supporting tree growth.

While trees and forests have value as a renewable cash crop, their presence is valuable in other ways. These include control of precipitation run-off and retarding snow melt to lessen flood risk; erosion control both water and wind; a habitat for wildlife; and, recreation opportunities for people. Furthermore, forest harvesting operations can be done in a manner that will enhance all forest values; however, it is essential that fire be kept out.

While the Department, and, specifically, the Forestry Branch, do not at present provide a forest extension service to private landowners, regional forestry staff will be pleased to provide advice on forestry or information to the extent that their other duties permit.

OUTDOOR RECREATION

I. PRESENT CONDITIONS/INTRODUCTION

Parks Branch interests in the Planning District are minor with respect to both existing facilities and proposed development in future. (Map 1.)

The sole existing development was the Binscarth Wayside, located on P.T.H. 16 adjacent to the Town of Binscarth. Steps have been taken to transfer control of the wayside facility to the Town of Binscarth and to delete it from the Provincial wayside system.

The area near the Manitoba-Saskatchewan border along P.T.H. 16 has a suitable location for a Provincial wayside--the Yellowhead Wayside and Tourism Information Centre. The development proposal for this facility includes an information and washroom building, day use area and playground, and outlying displays and trails. It is hoped that the Yellowhead route development would proceed in conjunction with Travel Manitoba once the Trans-Canada Highway tourism information centre and wayside development has been completed.

The linear trailway opportunity associated with the Assiniboine River has been identified and promoted by Parks Branch. The Lake of the Prairies, in the adjacent R.M. of Shellmouth, has recently established itself as a sport fishery of provincial significance. Downstream of the dam which forms this reservoir, fishing of lesser importance occurs in the Planning District. The river is also used by canoeists and as such the waterway should be afforded protection from excessive shoreline clearing, development, pollution, etc.

The abandoned railway line between Russell and Saskatchewan border has been considered by the Department of Natural Resources for retention in Crown ownership for use as a linear recreational trailway. Some form of increased year-round tourism will likely accrue to the Town of Russell from trail users. A final decision on this matter is still pending.

Overall in the Planning District, opportunities for outdoor recreation are limited to extensive forms, such as hiking, camping, and nature study, with some sport angling, the best areas for which are all located along the Assiniboine River and its tributary streams. In general, only a low level of development is warranted for recreational purposes.

II. CONCERNS/OBJECTIVES

The future development of the Russell-Binscarth Planning District should use the potential for outdoor recreation, maintain or enhance environmental quality, and prevent conflict with outdoor recreation resource use. In this respect, the physical and natural resources of the area dominate. The identification, maintenance and protection of the basic resource is most important. All land uses within or adjacent to high capability outdoor recreation areas, and the policies which guide their use, must be sensitive to and supportive of outdoor recreation. Areas of highest potential for present and future recreation opportunities - Lands classed by Canada Land Inventory as Class 4 and 5 - must be safeguarded through proper recognition and policies. If these valuable resources are disrupted or damaged by conflicting developments, the recreation opportunities and benefits will be degraded, and very likely in a permanent fashion.

The following are specific concerns/objectives:

1. The Yellowhead Route traverses terrain with more scenic appeal than the Trans-Canada and thus has become a popular transportation corridor. A provincial information facility associated with the Assiniboine River Valley would be scenic and an excellent setting to inform the public of Manitoba's rich natural and cultural heritage. This location and the historic associations of the Route render this development ideal for emphasizing fur trade, native cultural, and regional recreational themes.

   This and other areas of similar high recreation potential should be recognized, identified and safeguarded through resource use policies which give a priority to outdoor recreation.

2. The sensitivity of the resource to development should be considered. Development should only be allowed to the carrying capacity of the resource.

3. Recreation lands must be afforded protection from adjacent land uses which would diminish recreation opportunities.

4. The benefits to the community from local recreation opportunities must be maintained or enhanced.

5. Major road access corridors to recreation areas should be identified and afforded protection in order to maintain the integrity of the recreation opportunities.

6. The right of public access to recreation opportunities must be maintained or improved.

7. Future areas of high recreation potential must be protected from unplanned, sporadic residential development.

8. Residents must continue to have the wide choice of outdoor recreation opportunities which presently exist.

III. POLICIES/GUIDELINES

1. Lands adjacent to travel corridors, such as the Yellowhead Route, the Assiniboine Valley, and the abandoned rail line which have a recreation capability of Class 4 or 5 (or higher) are of local or regional significance and should be recognized as providing outdoor recreational opportunities and a high quality of environment, although other land uses may be given priority.

2. Where higher capability lands are given enhanced suitability through development such as the construction of a wayside or other recreation-related facility, resource and land use policies will give a priority to outdoor recreation.

3. a) All non-recreation uses in recreation areas shall be regulated so that they do not pre-empt or restrict outdoor recreation opportunities.

   b) Non-recreational or permanent residential development may not be supportive of outdoor recreation activities and it may be desirable to separate these activities.

   c) scattered or random residential development would generally be in conflict with outdoor recreation activities.

4. a) Land severances, subdivisions, etc. in areas designated for outdoor recreation uses shall be for outdoor recreation purposes.

   b) If it is considered desirable, specific areas could be identified for cottage development in order to reduce possible uncontrolled development and to maintain the integrity of recreation areas.

5. a) The subdivision of lands for the development of outdoor recreation opportunities shall be permitted only if the area is able to support such development without degrading the resource over the long term.

   b) Appropriate limiting factors, development standards and control guidelines should be established, for example: alternate development clusters with open space; encourage large lot development with suitable setback and sideyard requirements.

   c) New permanent residences should not be allowed in areas designated for seasonal residential purposes, in order to minimize servicing and maintenance costs.

6. Existing public rights of access to outdoor recreation opportunities shall be maintained or improved.

7. The designation of development policies respecting lands adjacent to and along access roads to existing or future parks and recreation areas shall not endanger or degrade the recreation experience.

8. The Planning District shall encourage the development and growth of outdoor recreation enterprises and service functions which are compatible with the character of the community and the capacity of the resource base.

9. Agricultural land use practices and policies applying to areas within or in close proximity to important existing or future outdoor recreation areas shall not adversely affect the recreation opportunities.

IV. IMPLEMENTATION

The objectives and policies can be achieved by means of appropriate zoning by-laws, conditions of subdivision approval and building permits.

Consultation with staff of the Department of Natural Resources is encouraged.

WATER RESOURCES: GROUNDWATER

I. PRESENT CONDITIONS/INTRODUCTION

Deep river valleys, thin overburden underlain by shale bedrock, and deep buried bedrock valleys are the most significant topographical and geological features relative to groundwater resources in the District (Figure 1). The shale forms extensive aquifers, the buried bedrock valleys contain the most significant sand and gravel aquifers in the District and the deep valleys strongly influence groundwater conditions near the valleys.

The groundwater resources in the District are adequate for existing requirements and moderate new development. Three kinds of aquifers can be discerned in the District: (1) shale; (2) lenses of sand and gravel; (3) thick and extensive sand and gravel (Map 3).

The shale aquifers underlie most of the area east of the Assiniboine River. The depth to the shale aquifers ranges from 5 metres to more than 50 metres (16-165 feet). The yield of domestic and farm wells completed in the shale aquifers ranges from 0.1 L/s (litres/second) to 1.0 L/s (1-13 I.G.P.M.). Lenses of sand and gravel are the most common aquifers in the Assiniboine Valley and west of it. The depth to these aquifers generally is 5 metres to 20 metres (10-65 feet) and their yield ranges from minimal to adequate for domestic and farm requirements.

A thick and extensive sand and gravel aquifer occupies much of a deep buried bedrock valley in the Binscarth area. Potential yield of this aquifer is more than 50 L/s (650 I.G.P.M.). A second buried bedrock valley which seems to contain numerous sand and gravel aquifers crosses the northwest corner of the District.

Groundwater quality in the District ranges from good to poor; the total dissolved solids concentration ranges from 500 mg/L (milligrams/litre) to 2000 mg/L and hardness from 400 mg/L to 1200 mg/L.

Groundwater pollution hazard exists in several areas where the shale bedrock or sand and gravel, that may form shallow aquifers, is at or near ground surface (Map 4).

II. CONCERNS/OBJECTIVES

The total groundwater supply in the District is adequate for present requirements and for moderate new development. Groundwater is the source of municipal water supply for the Town of Russell, Village of Binscarth and for domestic farm requirements in the District. Hence the overall concern is groundwater resource management and protection to assure adequate supply for existing users and for potential development. In most of the District the aquifers developed for water supply are overlain by sufficiently thick low permeability surficial deposits to prevent pollution of the aquifers. In several areas, however, shallow aquifers subject to pollution may exist. These areas are considered to be groundwater pollution hazard areas (Map 4).

Objectives:

1. To manage the aquifers in a manner that would not deprive existing users of their water supplies and would not be a detrimental groundwater potential in the District.

2. To maintain groundwater withdrawal within acceptable limits.

3. To prevent aquifer pollution.

III. POLICIES/GUIDELINES

1. Intensive development (subdivisions) and high capacity wells should be permitted only in areas where they will not cause a reduction in water supplies for existing users.

2. Groundwater consumption should not exceed the total sustained yield of an aquifer.

3. Wells should be installed in a manner that would not have a detrimental effect on aquifers.

4. Activities that may cause pollution under normal operating conditions or by accident should not be permitted in the groundwater pollution hazard areas unless it can be proved by adequate field investigations that the proposed activities will not cause pollution of existing or potential groundwater supplies in the area.

IV. IMPLEMENTATION

1. Aquifer management is implemented by the Water Resources Branch of the Manitoba Department of Natural Resources under the provisions of The Groundwater and Water Well Act and The Water Rights Act.

2. Well construction in respect to prevention of detrimental effect in aquifers is regulated by the Water Resources Branch of the Manitoba Department of Natural Resources under the provisions of the regulations made under The Groundwater and Water Well Act.

3. Aquifer pollution prevention is implemented by the Environmental Control Services of the Department of Environment and Workplace Safety and Health.

WATER RESOURCES: SURFACE WATER

I. PRESENT CONDITIONS/INTRODUCTION

The Russell-Binscarth Planning District is situated in the Assiniboine River drainage basin. Significant waterways in addition to the Assiniboine are Conjuring Creek and Silver Creek. There are numerous smaller, intermittent creeks, sloughs, and potholes in the District. With the exception of the Russell Dam and Reservoir on Conjuring Creek, all waterways are under municipal jurisdiction.

The major streams flow in deep valleys, limiting potential flooding problems to the valley bottoms. Although minor flooding may occur in other areas of the District, adjacent to streams or in poorly drained areas, it is confined primarily to agricultural lands. The valley slopes are generally stable, but erosion and instability problems may occur if clearing or unsuitable agricultural practices take place.

II. CONCERNS/OBJECTIVES

Flooding and water erosion are not among the major concerns or issues in the District. However, should development or other unsuitable land uses occur in hazardous areas, this may lead to acceleration of environmental damages, interference with natural processes, public expenditures for remedial works or assistance, waste of resources, and personal loss and hardship. In this respect the following objectives are established:

1. To minimize personal hardship and inconvenience and adverse affects on public health and loss of life.

2. To minimize property damage and public expenditures for relief or protection in areas subject to flooding, water erosion, wind erosion, bank instability, landslide or subsidence.

3. To restrict activities which would accelerate or promote damages arising from causes such as erosion or bank instability.

4. To acquire access to all waterways in order to carry out public work projects when required.

5. To maintain the natural capacity of the streams to convey flood flows.

6. To encourage the preservation of natural vegetation along the banks of waterways.

III. POLICIES/GUIDELINES

1. Development in areas which, in the opinion of the Board or Council, may be subject to hazards such as flooding, erosion or bank instability shall generally be limited to agricultural uses or open space uses. Under special economic or social circumstances the Board or Council may permit more intensive development if the hazard is eliminated or protected against. Development in these hazardous areas shall be subject to the following requirements:

a) If the land is subject to flooding all permanent structures shall be located on land which has been raised by fill to an elevation at least 0.6 metres above the 100-year flood level.

b) Land which may be eroded away within a period of 50 years shall be excluded from development unless it is demonstrated, to the satisfaction of the Board or Council, that the erosion process has been halted.

c) Development shall not be permitted on lands subject to bank instability, landslides or subsidence.

d) All structures and services shall be protected against damage and shall be functional under hazard conditions.

2. Notwithstanding (1) development will not be permitted if, as a result of the development:

a) There is an added risk to life or safety, or

b) Water flow, flow velocities or stages are adversely altered, obstructed or increased.

3. Activities such as dumping, excavation, clearing, cultivation, or excessive grazing which would accelerate or promote dangerous erosion or bank instability will be prohibited.

4. In areas where the specific hazard has not been defined, permanent structures shall be set back from all waterways a distance of at least 10 times the height of the bank above channel grade or 60 metres whichever is greater unless an engineering investigation shows that these limits may be reduced.

IV. IMPLEMENTATION

The policies shall be implemented by means of, variously, zoning by-laws, conditions of subdivision approval, the issuance of development permits and building permits, development agreements and such programs as are determined from time to time by the Board or Councils to be necessary and not in conflict with any part of the Plan.

WILDLIFE RESOURCES

I. PRESENT CONDITIONS/INTRODUCTION

Russell-Binscarth Planning District is situated on what is known as the Western Uplands of Manitoba, entirely within the watershed of the Assiniboine River. By far the most prominent feature, the Assiniboine River Valley is a wide, deep trench which bisects the district from north to south just a few miles from the Manitoba-Saskatchewan boundary. Numerous small tributary creeks carry local run-off to the river from the surrounding uplands.

Surface deposits in this area of the prairie are largely of glacial origin in the form of glacial till (ground moraine or drumlins) or glacio-fluvial deposits in the form of outwash plains, alluvial terraces, kames, eskers and eroded glacial till.

Topography in the area is generally undulating with low hills and potholes and marshes in the depressional areas. Soils developed on glacial deposits vary in value according to their topography, with the best occurring on the smoother topography, and on rolling topography characterized by long gentle slopes.

As could be expected, the slopes of the Assiniboine Valley and the smaller tributary streams are largely forested with a mixture of trees and shrubs. The uplands are characterized by intensive agricultural use on land some distance from the escarpment of the Assiniboine. Unbroken, treed areas are usually found on the rougher topography, shallow ravines and creek valleys, and near small potholes and marshes. Most of the upland areas are either under cultivation, or pastured if the soil is poorer or topography is rougher.

Since most of the uplands east of the river are of the Newdale Association, the agricultural capability classification is naturally quite high - Class $2^{7}_{T}\ 6^{3}_{W}$.

To the west of the river the capability is still quite high with the bulk of the area classed as Class $3^{4}\ 2^{2}\ 5^{4}$. The most valuable area to wildlife, particularly big game, is the Assiniboine River Valley, its tributaries and uplands, all of low agricultural value.

Wildlife Populations

Population figures for all species of wildlife are unavailable for the district since no aerial surveys have been conducted in the area. A better realization of big game abundance will hopefully be available during the winter of 1985/86 when a stratified random survey of selected square mile quadrats will be flown. Specific comments on each species or groups of species follow.

White-tailed Deer

Canada Land Inventory ungulate capability maps for this area rate most of the land east of the river as Class 3 for deer. West of the river, approximately one township is Class 4 with the remaining creeks and valleys and associated uplands ranging between Classes 5 and 1W. The escarpments of the valleys are generally classified as Class 1W, 2W or 3W, an indication of the value of these

areas to deer in winter. The extensive area to the east of the river, virtually all Class 3 for deer, is rated fairly high because of the combination of topography and the patchwork nature of fields and bluffs of aspen and oak. In most years, deer populations in the district are generally good.

Moose, Elk and Black Bear

Historically, moose and elk were probably common to this area, but with the advent of settlement, these big game animals have not been permanent residents in the District. Individuals of both species come out of Riding Mountain National Park where populations of both are good to excellent. These individuals often find their way to the treed valleys where habitat is extensive and they can live safely. Their natural movements often take them southeasterly along the Assiniboine to the Miniota-Virden areas, but seldom, if at all, do local populations develop.

Black bears are not uncommon in the more remote, rough terrain of the Assiniboine Valley and, in fact, populations within and close to the valley may be on the increase. These animals originally came from Riding Mountain where bears have flourished in the last decade.

Waterfowl and Wetlands

Very little of this District can be considered highly productive for waterfowl. East of the river, the frequency of potholes and small marshes is much greater than to the west of the river, but even here permanent wetlands are not plentiful. There are several large ponds or lakes but these seldom exceed a few acres in size. The area is not known for waterfowl production and, since there are no major marshes or lakes in the area, staging waterfowl populations in the fall are uncommon.

Furbearers

A number of species of furbearers are found throughout the District, particularly in the rougher terrain of the creeks and valleys. Muskrats are typically found in the shallow potholes and marshes and beaver in many of the streams and on the bigger lakes and marshes. Mink, generally associated with watercourses, are common to these areas. Coyotes and foxes are particularly common along the Assiniboine Valley and its escarpment and in some of the rougher topography to the west of the river. In recent years, coyote populations have been reported to have been quite high. Other furbearers such as red squirrel, weasel and badger are found throughout in areas of treed habitat. Muskrat populations are currently quite low due to the depressed water levels in marshes over the last few years. Timber wolves are periodically noted in the area but these animals are not generally residents but transients from Riding Mountain National Park.

Non-Game Species

Information on the host of non-game birds and animals in the District is virtually unavailable. There are no known significant populations of any species that are unique or outstanding. The Assiniboine Valley, by virtue of its topography and treed slopes, may have a larger nesting density of raptors than is the norm for the typical prairie-parkland area.

Wildlife Lands

There are no Wildlife Management Areas or Refuges in this District. At the present time there are no plans to create any WMAs or refuges.

Wildlife Projects

The Manitoba Wildlife Federation does not own any land in this District, but does own 800 acres in the Lidcliff Marsh area in the R.M. of Silver Creek to the east. Ducks Unlimited (Canada) has a total of 5 projects, all on private land, within the District. These projects are listed by name and legal description as follows:

Dunn	NW 11-21-28
Harris	NW 6-21-27
Pizzey	NW 7-18-28
Creek	SW 24-18-28
Baker	SW 34-18-28

Wildlife Issues

Probably the two issues that NROs most commonly encounter relative to wildlife are big game damage and nuisance beaver problems. Big game damage is predominantly caused by deer, particularly in winters of deep snow which forces deer to congregate in proximity to farms where they feed on tame forage. The District is far enough from Riding Mountain National Park so that elk incursions onto private land and into stored forage seldom occurs.

Nuisance beaver are a periodic problem to farmers in this municipality, particularly in the small drainages. Beaver also cause flooding problems in one or two locations where a railway crosses a creek valley. Most problems are solved by special trapping permits or removal of the beaver dam causing the flooding.

Although there are no major wetlands in the District which attract large numbers of waterfowl, waterfowl crop damage does occur periodically by birds flying from the Lidcliff (Diamond Lakes) Marsh area to the east in the R.M. of Silver Creek.

Recreational Aspects of Wildlife

The most notable or, at least, quantifiable use of wildlife is by sport hunters, primarily for deer. It is assumed that many rural and town residents enjoy wildlife and seeing numerous species of birds and animals in their local areas. Certainly the concern of local people was very obvious during the severe winter of 1984/85. Many local residents donated time, feed and funds to feed deer throughout the District as part of a provincial emergency big game feeding program.

II. CONCERNS/OBJECTIVES

Given the rather sketchy information on wildlife populations, the following objectives and policies are suggested for consideration of the District:

1. To maintain wildlife populations at existing levels, particularly on poorer quality land.

2. To promote programs and legislation to maintain wildlife habitat on private land, unused road allowances, and Crown land.

3. To promote communication and co-operation between local residents and the municipal council, government departments (particularly the Wildlife and Regional Services Branches of DNR), the Manitoba Wildlife Federation, Ducks Unlimited (Canada), etc., so as to achieve an active program of conservation of habitat and wildlife resources.

4. To promote all possible uses of wildlife; trapping, hunting, wildlife viewing and wildlife appreciation.

III. POLICIES/GUIDELINES

1. The District should protect from clearing all shrub or tree cover on all lands with an agricultural capability of Classes 4, 5 and 6.

2. The district board should be encouraged to curtail road development and to embark on an active program of establishing "Conservation Corridors" on unused road allowances.

3. Landowners should be encouraged to retain natural marshes and ponds in their native condition, rather than attempting to drain them.

4. Areas prone to waterfowl or deer depredation should be identified and landowners encouraged to work co-operatively with Natural Resource Officer staff of Department of Natural Resources in an attempt to reduce or minimize losses.

IV. IMPLEMENTATION

The objectives and policies of the District with respect to land use and wildlife resources should be implemented as follows:

1. By assistance and advice on conservation practices from the Department of Agriculture and the Department of Natural Resources.

2. By public and private co-operation through management and development agreements.

3. By the adoption of zoning by-laws or legislation passed by municipal council.

4. Through the control of issuance of development permits where applicable.

CROWN LANDS

INTRODUCTION

This section describes the Crown lands in the Planning District, providing an inventory of Crown lands and present commitments. Additionally, this section will discuss the authority for Crown lands, the legal aspects thereof and the planning and administration of Crown land.

DEFINITION

Crown land, for the purposes of this section, is defined as all land under Order-in-Council designated as: Provincial Park, Provincial Forest, Ecological Reserve, Wildlife Management Area, and Community Pasture, plus all other land administered by the Department of Natural Resources and Department of Agriculture under 'The Crown Lands Act'. In addition, all waterbodies, streams, rivers, and creeks are considered Crown lands except where original title has confirmed the lake bed or stream bed to an individual.

ACTS AFFECTING CROWN LANDS

There are a variety of acts which affect the administration and management of Crown lands. For the purposes here, the principal acts which govern use and management of these lands are:

1. The Crown Lands Act,
2. The Fisheries Act,
3. The Forest Act,
4. The Provincial Park Lands Act,
5. The Water Power Act,
6. The Rivers and Streams Act,
7. The Wildlife Act, and
8. The Water Resources Administration Act.

MANAGEMENT AND ADMINISTRATION OF CROWN LAND

The actual management and administration of Crown land is split between two Departments of Government, the Departments of Natural Resources and Agriculture. The Agricultural Crown Lands Branch has been assigned the functions and related administration pertaining to the issuance of agricultural leases and permits of occupation or use of those Crown lands which are designated by the Minister of Natural Resources as:

1. primarily agricultural lands, and

2. designated as multiple use lands which may only be used for agricultural purposes on an interim or secondary use basis, subject to specific conditions and covenants required by other resource users.

The principle responsibility for Crown land remains with the Department of Natural Resources, which administers The Crown Lands Act excepting those specific sections under the responsibility of the Minister of Agriculture.

The Minister of Natural Resources is responsible for administration, direction and control of the surveys of Crown lands. Survey monuments defining Township, Section and Quarter Section corners have been established throughout the Planning District.

The protection of the township survey fabric, the primary function of which is to support the transferring of rights in land via The Real Property Act or The Crown Lands Act, is essential to efficient and effective land administration. No system, purporting to give evidence of the ownership of land is complete if one cannot determine what land is being conveyed or where its boundaries are located. Boundaries, once defined, are a matter of law and the survey monument is the vital link between the ground and the administrative record.

CROWN LAND CLASSIFICATION AND PLANNING

Crown land is exempt from The Planning Act and is under the jurisdiction of the Manitoba Government as governed by the various acts of the Legislature mentioned above.

The classifying to use of Crown land in the southern portion of the Province is the responsibility of the Crown Land Classification Committee, (CLCC). This is an Interdepartmental Committee with representation from the Departments of Agriculture, Natural Resources and Municipal Affairs. The CLCC reports to and receives their direction from the Provincial Land Use Committee of Cabinet.

In carrying out this responsibility, the CLCC has established Bloc Planning Committees (BPCs). These BPCs have regional representatives from the Departments of Agriculture, Natural Resources and Municipal Affairs. The BPCs provide field recommendations, in effect, providing to the CLCC preliminary land use plans for their consideration of Crown lands. They are not, however, final plans. The Crown Land Classification Committee requires that all such plans must be reviewed and commented on by Local Councils and/or Planning District Boards. It is only after such review and appropriate adjustment if necessary, that a final Crown land plan is prepared.

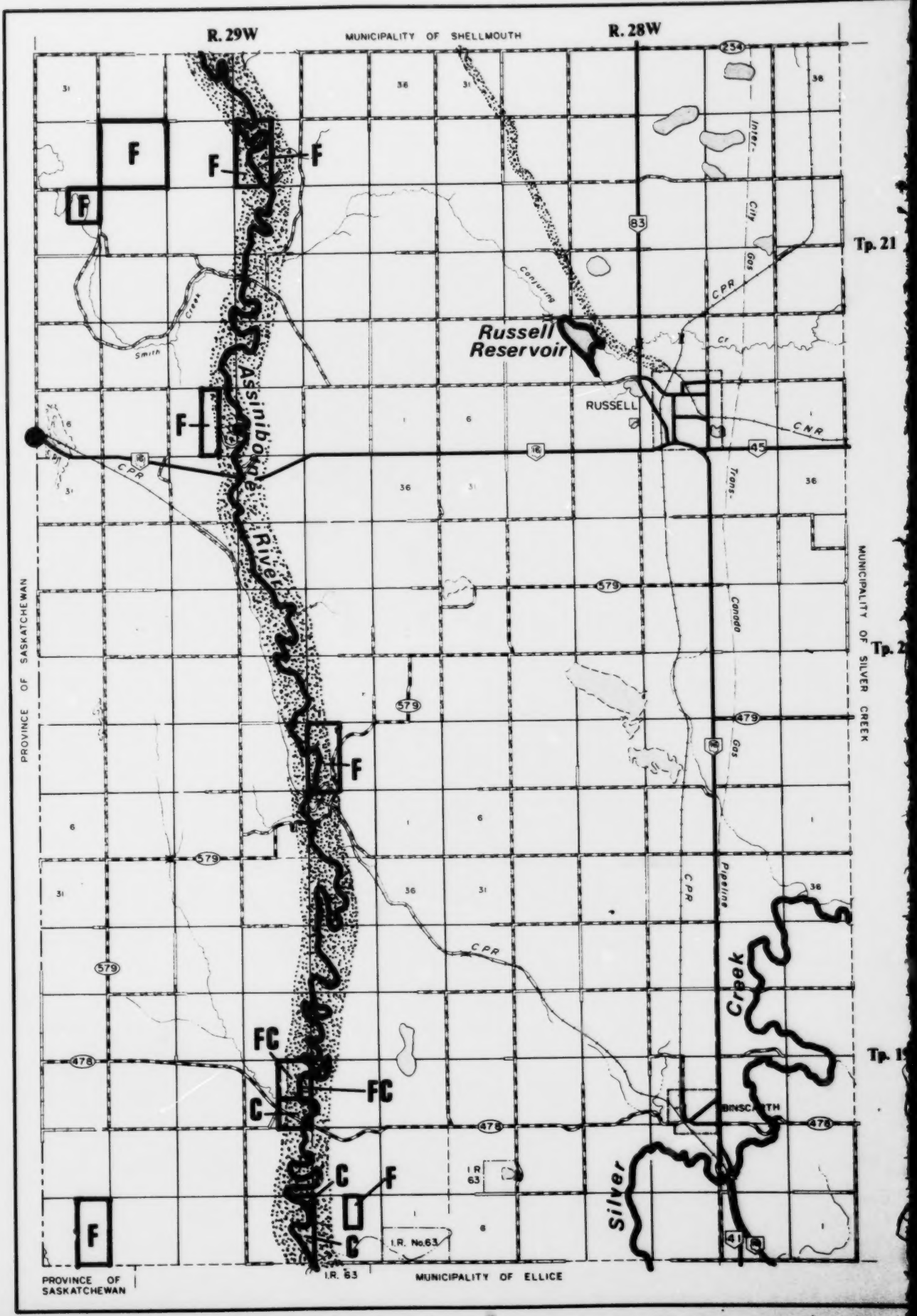
INVENTORY

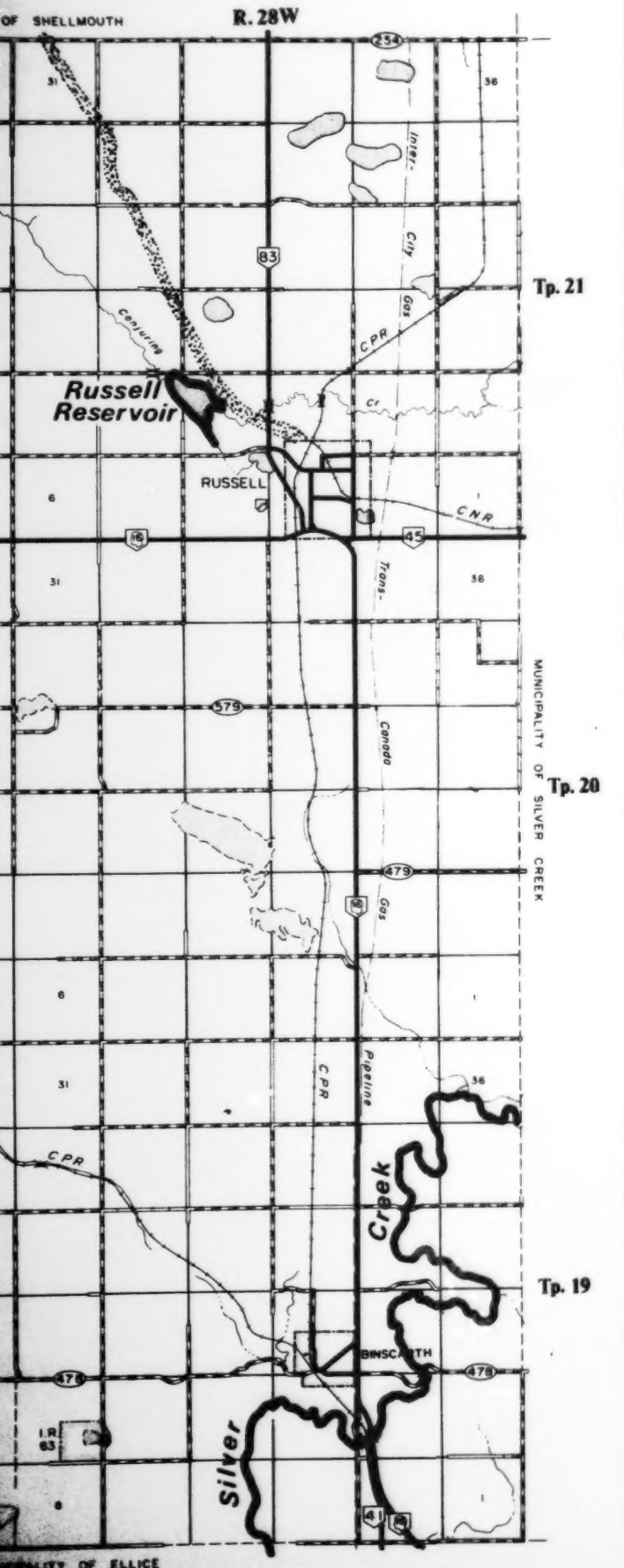
In the Russell-Binscarth Planning District there are approximately 971 hectares of Crown land, representing approximately 1.6 percent of the land base in the District (Map 1).

PRESENT COMMITMENTS

In the Russell-Binscarth Planning District, all of the parcels of Crown land are committed to agricultural use via Forage Lease or Cash Rental Lease.

However, it must be noted that the commitment of Crown land is a dynamic process with leases and permits being issued, expiring, being renewed, cancelled and dropped. This occurrence is a day-to-day administrative process being actioned by various Departments of Government.


R. 29W
MUNICIPALITY OF SHELLMOUTH
R. 28W
Tp. 21
Russell Reservoir
RUSSELL
Assiniboine River
PROVINCE OF SASKATCHEWAN
MUNICIPALITY OF SILVER CREEK
Tp. 2
Tp. 1
Silver Creek
I.R. No.63
I.R. 63
PROVINCE OF SASKATCHEWAN
MUNICIPALITY OF ELLICE
CPR
CNR
Trans-Canada
Gas Pipeline
Inter-City Gas
Conjuring Cr.
Smith Creek
F
FC
C
83
234
579
479
478
45
41
16
10



MAP 1
FISHERIES HABITAT, RECREATION OPPORTUNITIES AND CROWN LANDS.

FISHERIES HABITAT

ASSINIBOINE RIVER
SILVER CREEK
RUSSELL RESERVOIR

RECREATION OPPORTUNITIES

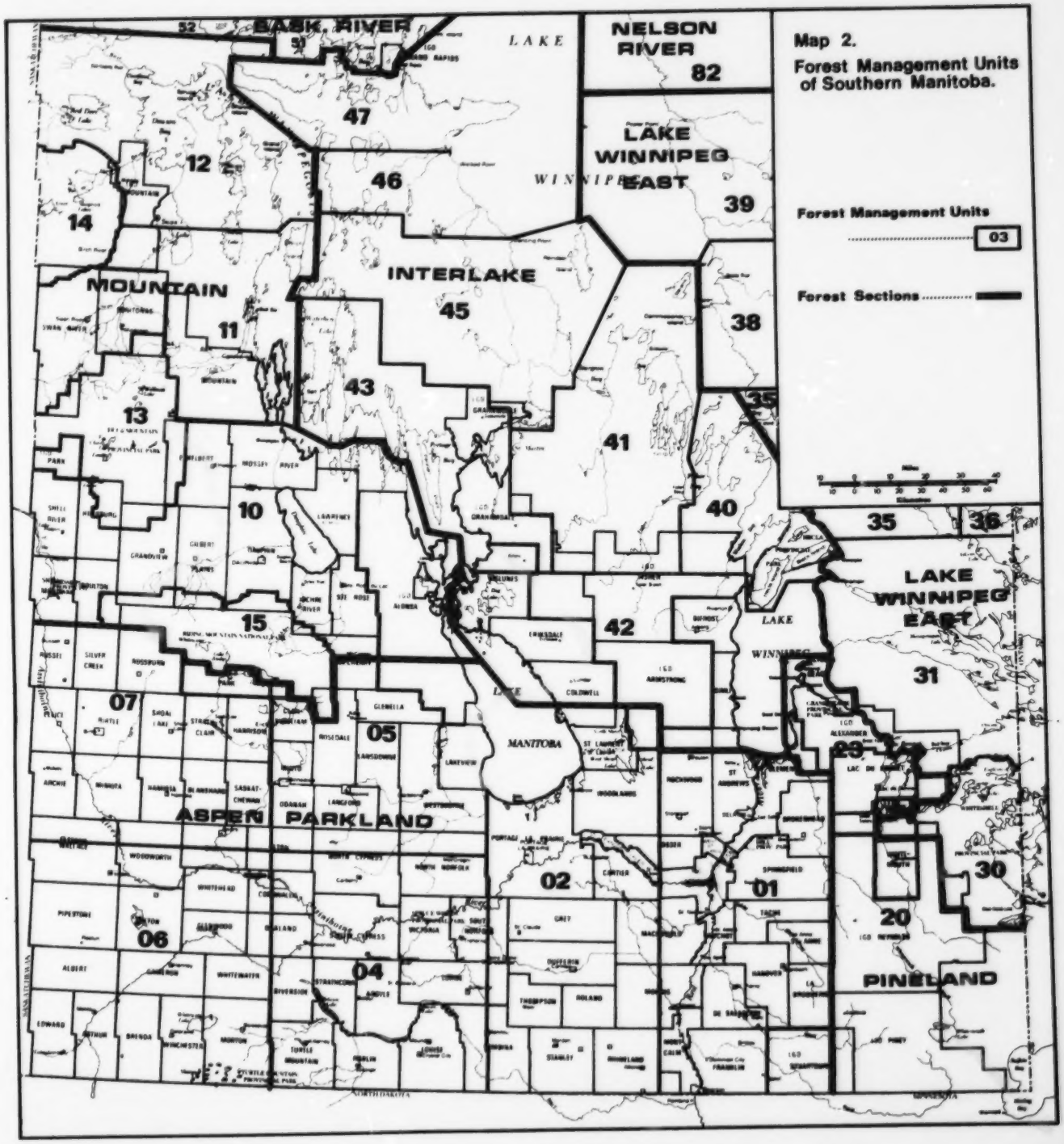
ASSINIBOINE RIVER VALLEY
ABANDONED RAILWAY
PROPOSED YELLOWHEAD WAYSIDE

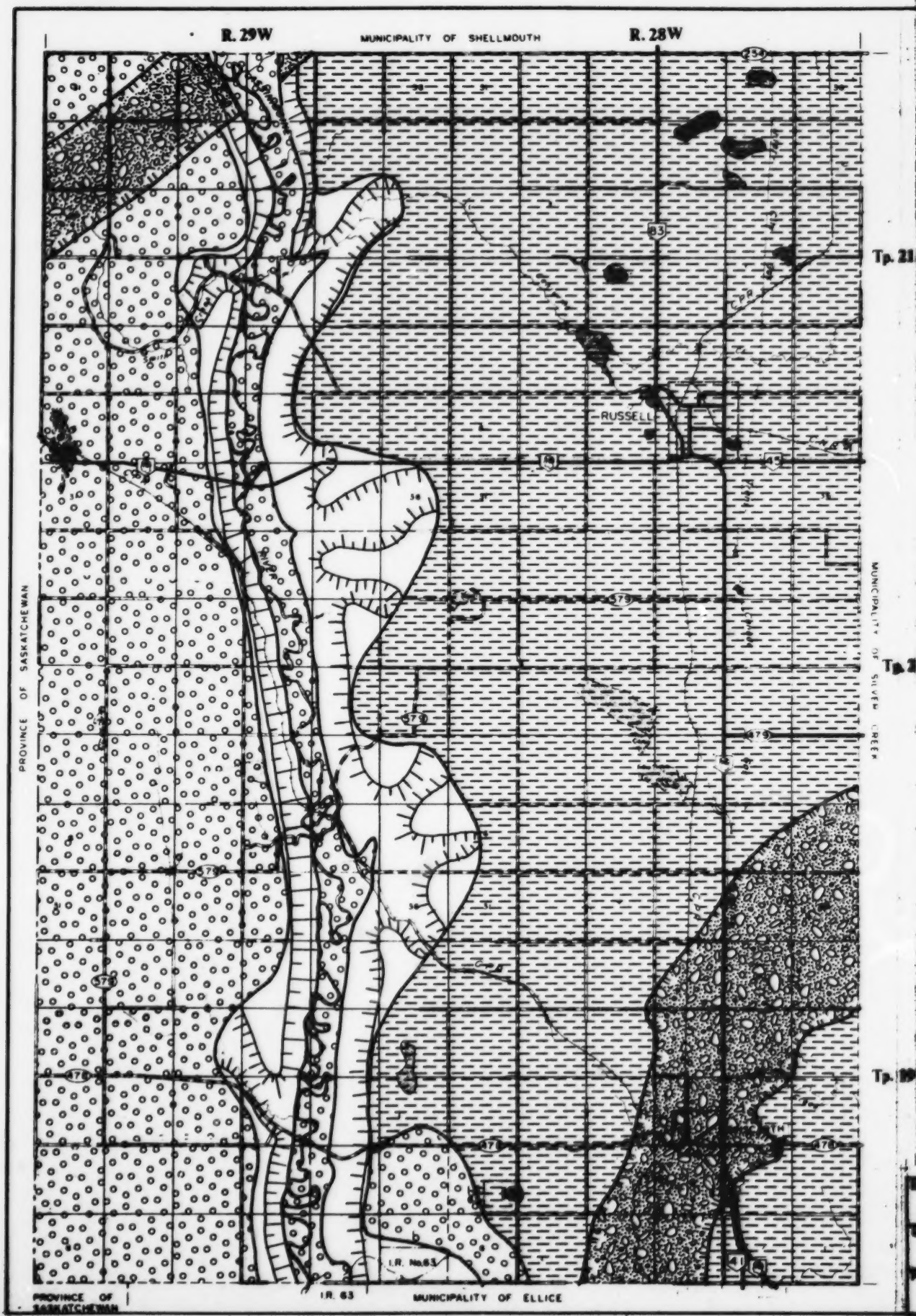
CROWN LAND

AGRICULTURAL LEASES
-FORAGE LEASE ..... F
-CASH RENTAL LEASE C

RUSSELL - BINSCARTH PLANNING DISTRICT

1 0 1 2 3 4 5 MILES
1 0 1 2 3 4 5 6 7 KILOMETRES


SASK. RIVER
NELSON RIVER
82
LAKE WINNIPEG EAST
39
INTERLAKE
45
MOUNTAIN
11
ASPEN PARKLAND
05
07
06
04
02
01
03
10
12
13
14
15
31
35
36
38
40
41
42
43
46
47
52
LAKE WINNIPEG
MANITOBA
PINELAND
20
30
Map 2.
Forest Management Units of Southern Manitoba.
Forest Management Units
03
Forest Sections


R. 29W
MUNICIPALITY OF SHELLMOUTH
R. 28W
Tp. 21
RUSSELL
PROVINCE OF SASKATCHEWAN
MUNICIPALITY OF SILVER CREEK
Tp. 2
Tp. 20
I.R. No.63
PROVINCE OF SASKATCHEWAN
I.R. 63
MUNICIPALITY OF ELLICE

EXPLANATION

SHALE AQUIFERS: FRACTURED WATER BEARING ZONES IN HARD SHALE BEDROCK MINOR SAND AND GRAVEL AQUIFERS MAY OCCUR ABOVE THE SHALE AT SOME LOCATIONS

AQUIFERS FORMED BY LENSES OF SAND AND GRAVEL INTERBEDDED IN TILL AND FLUVIAL DEPOSITS. MOSTLY MINOR LOW YIELD AQUIFERS SOME FAIRLY HIGH CAPACITY AQUIFERS MAY OCCUR IN ASSINIBOINE VALLEY

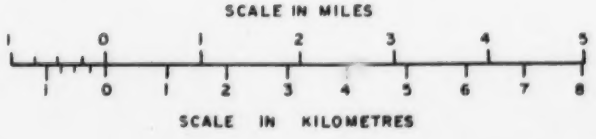
EXTENSIVE AND THICK SAND AND GRAVEL AQUIFERS (BINSCARTH AREA) OR NUMEROUS SMALL SAND AND GRAVEL AQUIFERS (N.W. CORNER)

PRACTICALLY NO AQUIFERS

BURIED BEDROCK VALLEY APPROXIMATE BOUNDARY

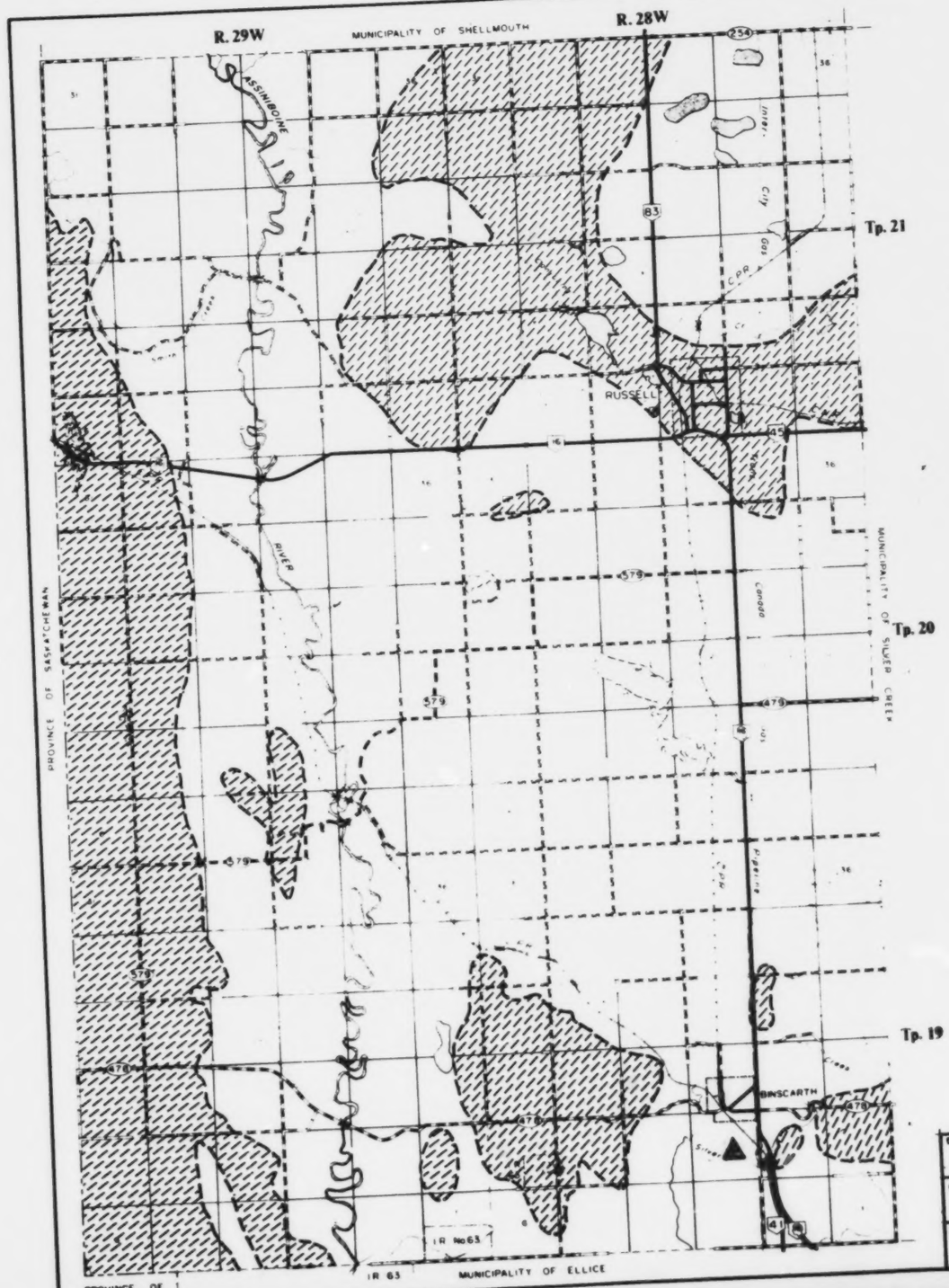
STEEP HIGH SLOPES OF ASSINIBOINE VALLEY AND MAJOR TRIBUTARIES

MUNICIPAL WELL FIELD



MAP 3

AWN L.S & F.R	Manitoba Natural Resources Water Resources	RUSSELL — BINSCARTH PLANNING DISTRICT
CKED		AQUIFERS
PARED M. RUTULIS	SUBMITTED L. Gray APPROVED	SCALE AS SHOWN · DATE 85 10 09 · SHEET 2 OF 3 · FILE NO. 90-7-1128



N

EXPLANATION

GROUNDWATER POLLUTION HAZARD AREA

NOTE:
DETAILED FIELD INVESTIGATIONS MAY SHOW THAT GROUNDWATER POLLUTION HAZARD DOES NOT EXIST AT SOME LOCATIONS WITHIN THE INDICATED AREA.

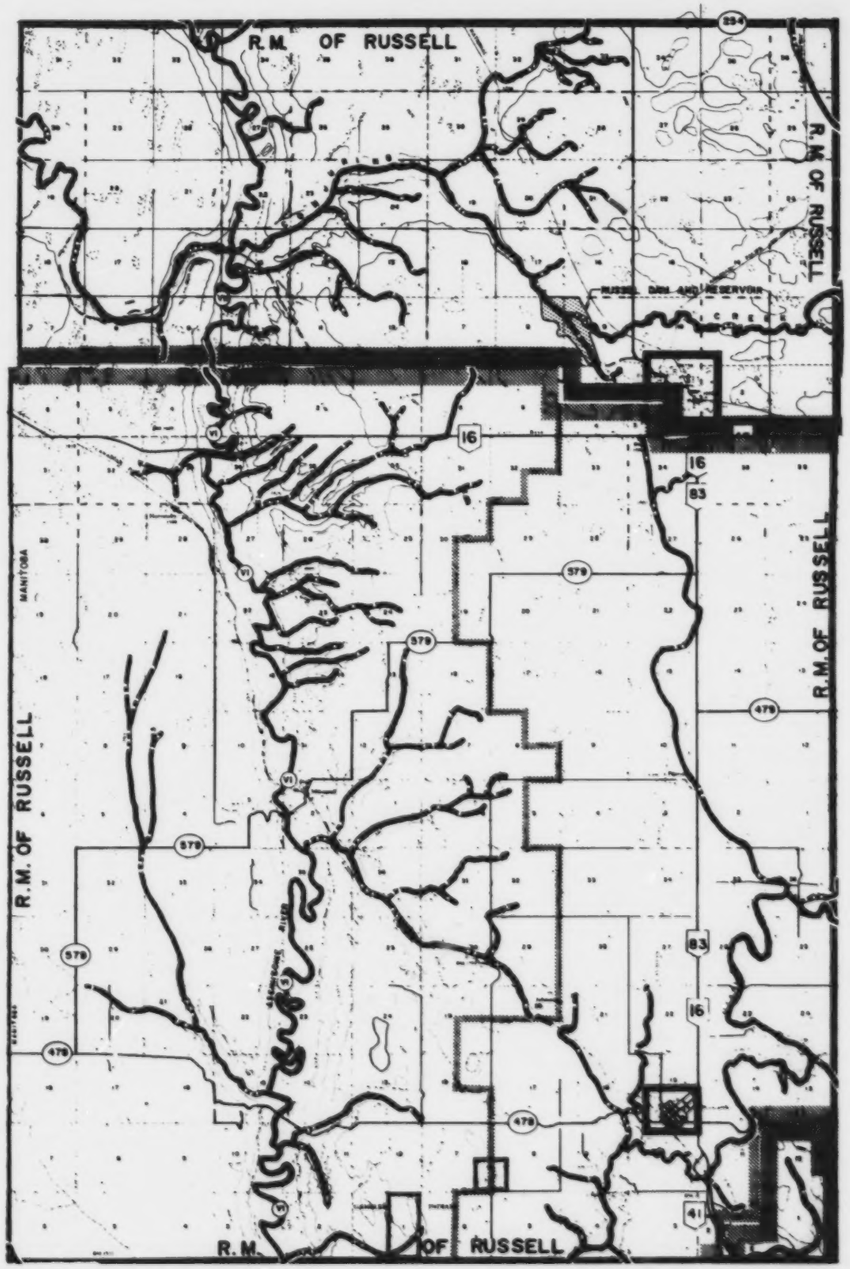
▲ MUNICIPAL WELL FIELD

AFTER D. SIE 1978. RIDING MOUNTAIN AREA GROUNWATER POLLUTION HAZARD MAP

SCALE IN MILES
0 1 2 3 4 5
0 1 2 3 4 5 6 7 8
SCALE IN KILOMETRES

MAP 4

DRAWN S.S	Manitoba Natural Resources	RUSSELL – BINSCARTH PLANNING DISTRICT
CHECKED	Water Resources	GROUNDWATER POLLUTION HAZARD AREAS
PREPARED M. RUTULIS	SUBMITTED L. Gray	DATE 85 10 09



Map 5
Surface Drainage Systems

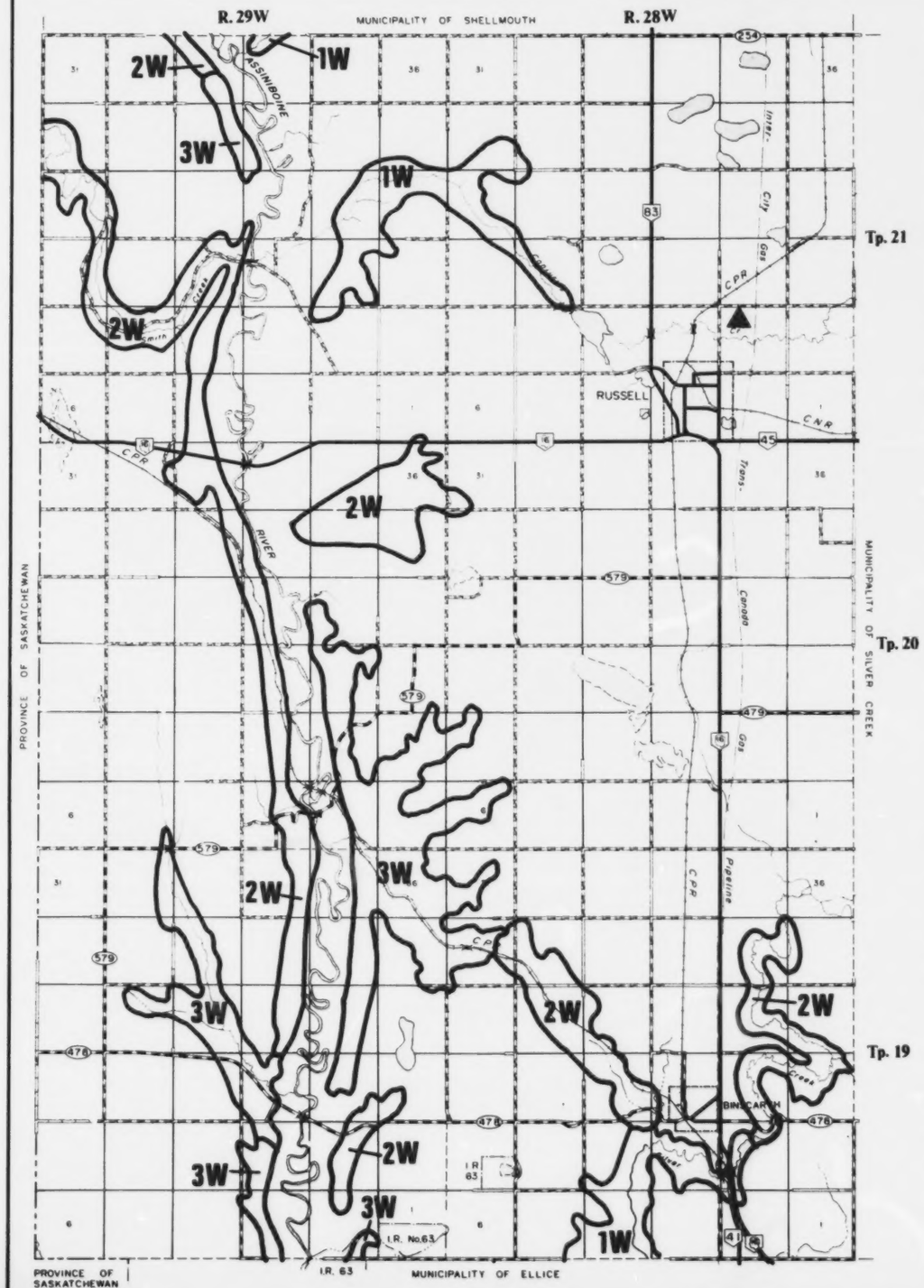
LEGEND

WATER COURSE
- 1st ORDER DRAINS
- 2nd ORDER DRAINS
- 3rd ORDER DRAINS
- 4th ORDER DRAINS
- 5th ORDER DRAINS
- 6th ORDER DRAINS
- 7th. ORDER DRAINS

- LIMITS OF DRAINAGE AREA
- CITY, TOWN AND MUNICIPAL BOUNDARIES
- PROVINCIAL TRUNK HIGHWAYS (2)
- PROVINCIAL ROADS (513)
- SUBDIVISION BOUNDARIES
- INDIAN RESERVE & PROVINCIAL BOUNDARIES

RUSSELL - BINSCARTH PLANNING DISTRICT

SCALE IN MILES
0 1 2 3 4 5 6 7 8
SCALE IN KILOMETRES



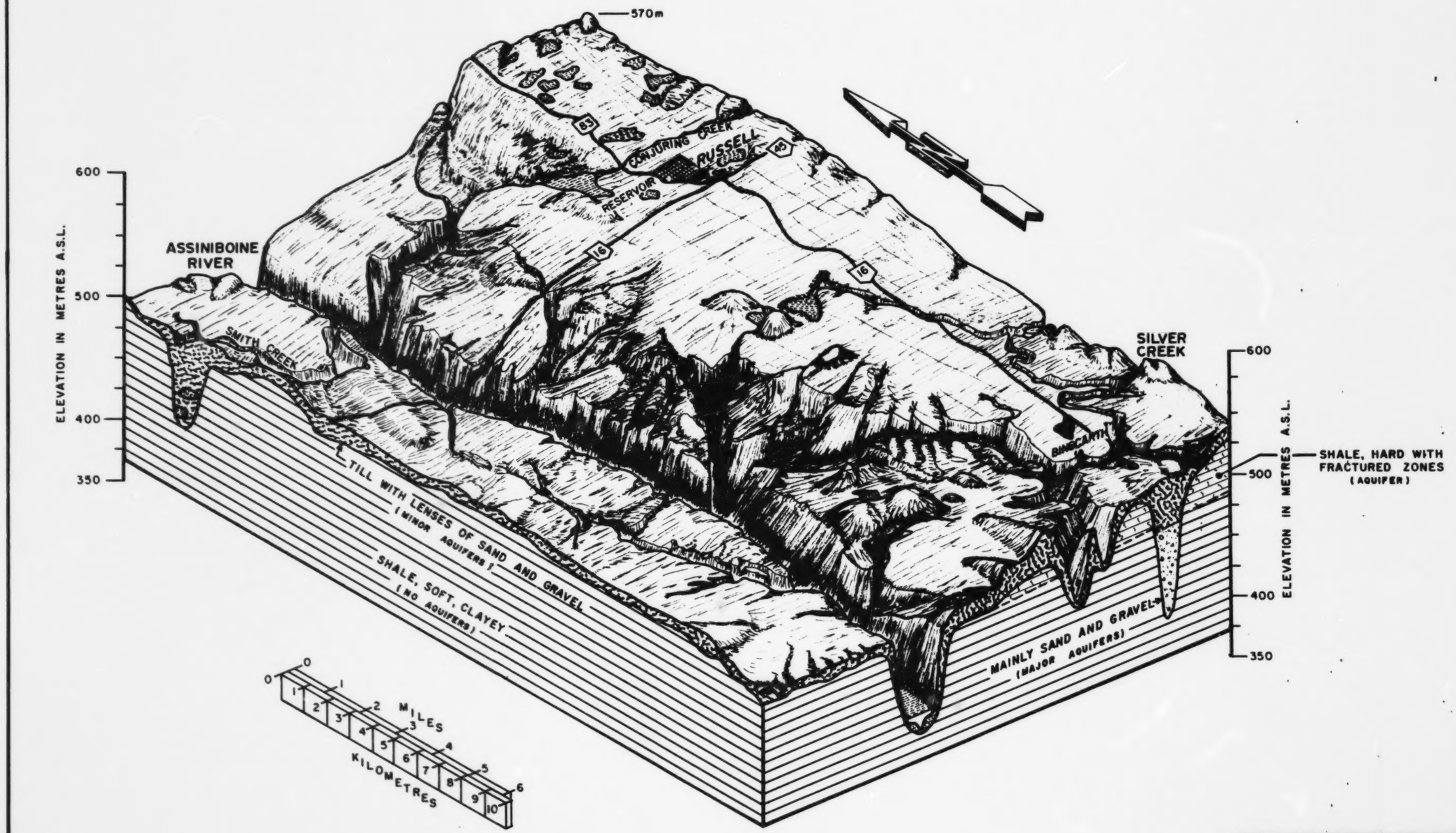
MAP 6.
WILD UNGULATE CAPABILITY AND DUCKS UNLIMITED PROJECTS.

3W Canada Land Inventory (C.L.I.) Wild Ungulate Capability - Classes 1W, 2W and 3W only.

▲ Ducks Unlimited Projects.

RUSSELL - BINSCARTH PLANNING DISTRICT

MILES
KILOMETRES



DRAWN F.B.R.
CHECKED
PREPARED M.Rutulis

Manitoba Natural Resources
Water Resources

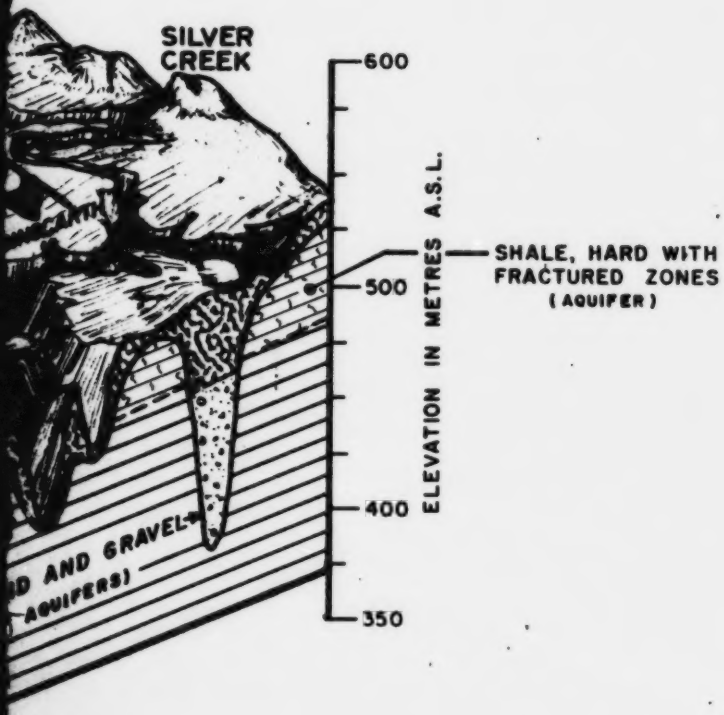


FIGURE 1

DRAWN: F.B.R.	Manitoba Natural Resources Water Resources	RUSSELL-BINSCARTH PLANNING DISTRICT	
CHECKED:		TOPOGRAPHIC AND GENERAL HYDROGEOLOGICAL SETTING	
PREPARED: M.Rutulis	SUBMITTED: L. Grass APPROVED:	SCALE: AS SHOWN	DATE: 85 10 06
		SHEET: 1 OF 3	FILE NO.: 90-1-7-1128